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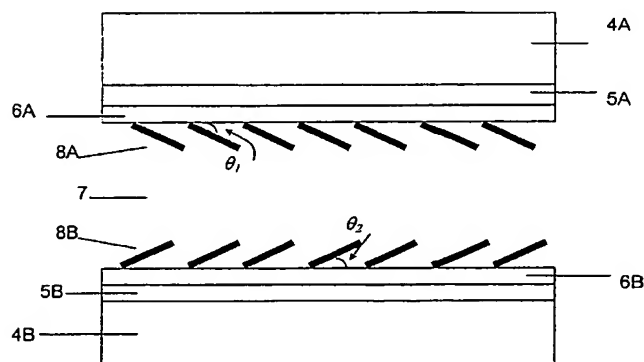
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(54) Title: **BISTABLE LIQUID CRYSTAL DEVICE**



(57) Abstract: This invention provides a bistable liquid crystal device. The bistable liquid crystal device includes a first substrate having thereon a first conductive layer and a first alignment layer; a second substrate having thereon a second conductive layer and a second alignment layer; and a liquid crystal layer sandwiched between the first and second alignment layers. The first alignment layer induces a first pretilt angle  $\theta_1$  in the range of  $20^\circ$ - $65^\circ$  between the liquid crystal layer in contact with the first alignment layer. The second alignment layer induces a second pretilt angle  $\theta_2$  in the range of  $20^\circ$ - $65^\circ$  between the liquid crystal layer in contact with the second alignment layer. The liquid crystal layer is capable of maintaining a stable bend state or a stable splay state at zero bias voltage and is switchable between the stable bend state and the stable splay state when a switching energy is applied in operation to the liquid crystal layer.

WO 2005/040899 A1



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